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ABSTRACT

This symposium paper reviews the literature on adult students in higher education and offers a model of their collegiate experiences. The review is organized according to the following themes: adults' experiences in higher education, social and psychological concerns, the role of the classroom, adult cognition, the adult-world surroundings, and adults' success in college. Also discussed are three alternative frameworks for conceptualizing and researching adult involvement. These include schema that examine learner involvement through adult life roles, learner participation in lifelong learning, and learner participation in a post-modern society. Also proposed is a comprehensive model that considers the relationships among six major elements related to adults' collegiate experiences: (1) prior experiences; (2) orienting frameworks such as motivation, self-confidence, and value system; (3) adult cognition, including declarative, procedural, and self-regulating knowledge structures and processes; (4) the "connecting classroom" as the central avenue for social engagement and for negotiating meaning for learning; (5) the life-world environment and the concurrent work, family, and community settings; and (6) the different types and levels of learning outcomes experienced by adults. A chart summarizing research is attached. (Contains 84 references.) (DB)

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Adult Undergraduates' Participation and Involvement: Future Directions for Theory and Research

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Abstract

The lack of conceptual research on adult learners' participation has limited scholarly discussion and practitioner understanding about adults' experience in higher education. Researchers and policy makers need alternative frameworks and additional research on adult learner participation and outcomes to further understand the multiple venues of learning and development beyond the collegiate scene. There is need to reframe the assumptions in relation to both academic and psychological development and consider learner involvement and participation through adult life roles and as lifelong learners and to consider learner participation in a Post-Modern Society. This symposium will respond to these issues using a synthesis of key research and by offering opportunities for scholarly collaboration from the audience participants to define alternative strategies and models that help explain adult student involvement in higher education and the impact of college upon adult learning and development.

This symposium offers a review of the literature including a chart organizing the research on adults in higher education along several broad themes such as cognitive and intellectual development, motivation, cognitive patterns and approaches to college, the institutional experience, and life roles and styles. In addition this symposium presents a comprehensive model that considers the relationships between six major elements related to adults' collegiate experiences: (a) prior experiences, (b) orienting frameworks such as motivation, self-confidence, and value system, (c) adult's cognition, or the declarative, procedural, and self-regulating knowledge structures and processes, (d) the "connecting classroom," as the central avenue for social engagement and for negotiating meaning for learning, (e) the life-world environment and the concurrent work, family, and community settings, and (f) the different types and levels of learning outcomes experienced by adults.

Adult learners are dramatically changing the nature of higher education today. They are now a powerful segment of the undergraduate population and make up about 40-45% of the students enrolled as undergraduates in higher education (The National Center for Education; Statistics, 1996). These adults enroll part-time, take courses through the internet and other distance technologies, and demand creative ways to complete their education where they spend little or no time on campus. Despite these trends, most of the insights about the undergraduate experience are drawn from the past two decades of research on young adults and their development (Astin, 1977, 1993; Kuh, 1993; Pace, 1979; Pascarella & Terenzinni, 1991; Terenzinni & Pascarella 1994; Chickering & Gamson, 1987) and are limited in explaining how adults actually learn in college. In order to promote success in college for adults, administrators working with adult students need to understand what elements influence adults, what they learn, and how they do it.

This manuscript offers a review of the research on adult learners in higher education and alternative frameworks for understanding how adults learn. It also proposes a comprehensive model of adults' experience in college that considers pre-existing conditions and motives, adults' cognition, ways the adult learners engage the classroom to foster learning, adults' learning in context of their current life-world experiences, and the outcomes adults observe as a result of their college experiences.

Review of the Literature

Much of the research on college outcomes has been framed by Astin's theory of involvement where he argued the greater the level of a student's involvement in college, the greater the learning and personal development (Astin, 1996). His theory defines student involvement as the amount of physical and psychological time and energy that students invest in both out-of-class and in-class educational experiences (Astin, 1993). Both student-to-student and faculty-student interactions contribute to the student's level of integration with the

academic life of the institution and the social life of the campus (Bean, 1990; Terenzini & Wright, 1987; Tinto, 1975, 1987).

Many studies have offered evidence that involvement has a direct, positive impact on gains in traditional-aged student learning and development (Astin, 1984, 1993, 1996; DeSousa & Kuh, 1996; Kuh, 1993a, 1995; Pascarella, 1985; Pascarella & Terenzini, 1991; Terenzini, Springer, Pascarella & Nora, 1995; Terenzini, Theophilides & Lorang, 1984; Terenzini & Wright, 1987). Yet, in these studies, involvement has been defined primarily in traditional ways for traditional aged students who interact in a peer culture that shapes their values, habits, and knowledge (through campus social activities, peer group interactions, and on-campus relationships).

Understanding Adults' Experiences in Higher Education

Adult students spend limited time and psychological interactions beyond the scope of the academic classroom. They are more often part-time enrollees, commuters, evening or weekend attenders on the campus, and have limited or no involvement in on-campus student activities. Yet, adult undergraduates receive equivalent to better grades and report higher satisfaction with both their collegiate experiences and their faculty instructors than younger students. Despite lower levels of campus involvement, rusty academic skills, and busy lifestyles, adults report significant progress from their academic endeavors. There are several reasons that might help explain this. First, adults have complex and rich mental schema that might make learning more personally meaningful for them. According to the work of several researchers (Cervero, 1988; Kasworm, 1997; Kasworm & Blowers, 1994; Merriam & Cafferella 1991, 1999), adults integrate new learning by making connections to existing knowledge schema. They reflect on personal experiences and their previous knowledge and wisdom to "make meaning" with new material. Secondly, in many instances, adults apply this new learning immediately in real-life contexts, making connections to other real life activities in various adult life roles (Hughes & Graham, 1990; Kasworm, 1997). As a result, adults achieve a new more "authentic involvement," that addresses their comprehensive community

and life roles and is not limited to the classroom or to experiences in college clubs or organizations (Graham & Donaldson, 1996; Kasworm, 1995, 1997). Adults also are likely to use the classroom as a stage to intensify their learning and enhance their interactions with peers and instructors to achieve additional benefits (Bean & Metzner, 1985; Donaldson, 1991; Kasworm, 1997; Kasworm & Blowers, 1994). Finally, research by Cupp, (1991), Frost (1991) and Kasworm (1995) suggested adults are more intent on learning, hope to gain something they can apply to their work, approach their college experiences with a clearer purpose in mind, and take the advice of instructors more seriously.

Social and Psychological Concerns. Many social and psychological concerns influence the adults' experience with higher education. For example, they may be concerned about "being too old," and a lack confidence in their academic abilities (Chartrand, 1990; Carp, Peterson, & Roelfs, 1974; Novak & Thacker, 1991). However, if adults have supportive family and friends, adequate study skills, and a clear purpose for participation they are more likely to do well and to persist in college (Chartrand, 1992; Dill & Henley, 1998). Furthermore, many authors report that adults work harder than the traditional- aged students, take the advice of their professors more seriously, or are more concerned with the academic aspects of their education than the younger students (Cupp, 1991; Donohue and Wong, 1997; Frost, 1991, Kasworm, 1995; Kasworm & Blowers, 1994; Okun, Kardash & Janiga, 1986; Nunn, 1994; Richardson & King, 1998; Sheehan, McMenain, & Mc Devit, 1992; West, 1991).

The Role of the Classroom. There is some evidence that adults use the classroom to engage themselves in the college experience, forgoing many of the out-of-class experiences younger students participate in. Many studies have shown that adult learners were much less involved in extracurricular activities on campus, citing family roles, work, and a lack of time or money as the cause (Cupp, 1991; Frost, 1991; Graham, & Donaldson, in press; Kasworm, 1995; Kuh, 1993; Quinnan, 1997). Kasworm and Blowers (1995) found that part-time students attribute the relationships they develop with faculty members and their in-class

learning experiences as more meaningful to them than it was for their traditional-age peers. Additionally, research on adults suggests that the development of a community of learners within classes and having a respectful and caring instructor are critical factors for adult students (Donaldson, 1991; Donaldson, Flannery, & Ross-Gordon, 1993). Graham and Long (1998) reported the adult students' overall satisfaction with the college's academic climate played a more significant role in the students' learning outcomes than did their involvement.

For example, Kasworm (1997) found that for adults the classroom was the "main stage for the creation and negotiation of meaning for learning, for being a student and for defining the collegiate experience" (p. 7). According to her analysis, the classroom was used by adult students to (a) maintain a division between academic and personal life-world knowledge structures or schemata; (b) use the academic knowledge structures to illuminate and elaborate existing life-world knowledge structures; or (c) transform both academic and life-world knowledge structures into new, integrative structures and meaning (Kasworm, 1997). This is consistent with other researchers who acknowledged the primary role the classroom played for adults (Bean & Metzner, 1985; Dill & Henley, 1998; Donaldson, 1991; Kasworm, 1997; Kasworm & Blowers, 1994).

Adult Cognition. The rich learning and cognitive schema adults bring to the classroom also influences their learning and interactions with new material. In addition, due to prior experiences and self-understanding of learning patterns, adults make better use of time management strategies than do traditional-age students (Trueman & Hartley, 1996; Kasworm, 1997). Adult learners employ complex metacognitive strategies about their approaches to study (Kasworm, 1997) and take a more serious approach to the new content presented in their courses, going beyond a superficial approach to learning what needs to be reproduced for the next exam (Harper & Kember, 1986; Kasworm, 1997; Marton, Hounsell, & Entwistle, 1984; Mishler, 1983; Richardson, 1994, 1995).

The Adult-World Surroundings. The everyday life of the adult student with multiple life roles and duties also provides the context where adults learn in experience and construct

what Kasworm labeled "life-world knowledge structures." These settings serve as out-of-class contexts for learning and act as alternative avenues for conventional campus involvement (e.g., social clubs, campus activities, work study experiences). These settings offer places where adults construct meaning for what they are learning in their classrooms. For example, Kasworm (1995) noted that involvement for adults means engagement in work, family, and self-directed learning projects outside the confines of the college setting and beyond particular course assignments.

Furthermore, the as adults interact with their other roles as worker and family member these people either provide psychological and social support for adults to return to pursue their collegiate studies or undermine their efforts (e.g., Apps, 1981; Chartrand, 1992; Ross, 1989; Schlossberg, 1987). In addition, Merriam and Heuer (1996) found that support from others can help adults foster meaning from their experiences as part of their continued development.

Adults' Success in College. Adults generally do as well or better than traditional-age students despite different patterns of enrollment and involvement in higher education. Graham and Donaldson (in press) found adults reported slightly higher levels of growth than did the younger students on most academic and intellectual items even though they were much less involved in campus activities and much more involved in caring for their families. Graham (1998) evaluated the effects of the colleges' "educational ethos" on academic and intellectual development of adults and reported similar levels of development to that of the younger students. In addition, the greater the satisfaction with the colleges' climate for learning or "educational ethos," the greater the reported growth on outcomes for both adults and traditional-aged students. Thus regardless of age, students profited when they felt they were supported by the educational ethos of college.

Cupp (1991) reported that postsecondary education served as a stimulus for changes in attitudes and values among adults. For many it stimulated new aspirations and interests and helped them realize these increased goals; yet some feared acquiring a "shallow knowledge base" in this respect. Graham and Donaldson (1996) created an index to measure "personal

growth attributed to college attendance" and reported that colleges had a "tangible impact" on 29 of the 36 personal and social areas; and the adults' reported growth comparable to that of the younger students. Kasworm (1990b) reviewed over 300 studies and found that adult students did as well or better than traditional- aged students in higher education settings based on grades and aptitude/content test performance measures. Kuh (1993) found adults reported benefits similar to those articulated by traditional-aged college students. Numerous other studies found that adults report outcomes similar to younger college students across a wide array of areas (Graham, 1998; Graham & Donaldson, 1996; Graham & Donaldson, in press; Graham & Long, 1998).

All of these findings suggest adults' prior experiences and current lifestyles force a somewhat unique experience on them compared to the traditional-age student who moves directly from high school to full-time college work. Since much of the previous research has focused on traditional students it becomes useful to develop new models and ways of thinking to explain the nature of the adult undergraduate experience. The following section will address some of those issues as well as outline different ways of thinking about adults in higher education.

Alternative Frameworks for Conceptualizing and Researching Adult Involvement

What difference or impact does college have upon the undergraduate learner? This important issue is at the heart of the value and effectiveness of higher education. Although there are many topics within this inquiry, most of the major research discussions have focused upon the key areas of student participation and outcomes. These various research activities have viewed the college experience as a special treatment, intervention, or holding environment. They assume that the college experience and the college environment are unique, powerful, and self-sustaining. In particular, there are implicit and explicit assumptions that the collegiate environment can psychologically alter the intellectual, social and personal development of the individual learner and his/her future actions.

Because of the assumed significance of college participation, there has been an explicit linking of participation with the nature and potential consequences of the student developmental experience. There also have been linkages to varied outcome measures including persistence and completion of degree programs. The unit of analysis for this research has most often been student characteristics related to demographic, personality, cultural, and social characteristics and in relation to a specific period of enrollment within a specific institution. Past key findings have often correlated student characteristics or key student experiences as influencing or predicting intellectual growth, personal development, academic success, and persistence to graduation. In some of the literature, there have also been efforts to identify differential institutional and instructional environments that may influence participation, persistence, and outcomes. These more recent discussions of a person-environment interaction suggest a multivariate approach and a more complex global diversity of institutions and individuals.

Two historic theoretical research lenses have been predominant in defining the constructs of participation and persistence: the Cultural Community frame and the Talent Development frame. The first frame of culture was utilized by Tinto in his studies of student attrition. His initial landmark investigations and subsequent supporting stream of research viewed students as members of a cultural community. It also identified the college as a new cultural community for the student to enter, socialize and integrate within, and establish one's identity and participation. Drawing upon the work of social anthropology and the work of Van Gennep and of Durkheim, he suggested that the concept of rites of passage could represent this perceived longitudinal process of student persistence.

..it is possible to envision the process of student persistence as functionally similar to that of becoming incorporated into the life of human communities generally and that this process, too, is marked by similar stages of passage through which individuals must typically pass in order to persist in college. By extension, it further suggests that the process of student departure reflects the difficulties individuals face in seeking to successfully navigate those passages.(Tinto, 1975, p.94)

Through the rite of passage, the individual should ideally become integrated into the culture and reflect a congruence between self and culture. If the individual is not able to fully integrate into the community or because of a lack of congruence between the student and the culture, there is a mismatch. This mismatch suggests that the individual is a more marginalized or segregated member of the culture; and that the student lacks centrality and commitment to the cultural norms, rituals, and relationships of that community. In particular, Tinto suggests that the more marginalized the student, through nonspecific, unstable, or diffuse individual intentions and subsequently actions, the less the individual will remain in this cultural collegiate community (Tinto, 1975,40-41). In these examinations, Tinto also recognizes that external social systems (other cultural communities) of the individual student may undermine and weaken the integration into the life of the institution. They may also negatively influence the individual student's abilities to persist to degree completion.

The second frame, that of Talent Development, is most lucidly presented by Astin's Theory of Involvement. As noted by Astin,

The talent development view of excellence emphasizes the educational impact of the institution on its students and faculty members. Its basic premise is that true excellence lies in the institution's ability to affect its students and faculty favorably, to enhance their intellectual and scholarly development, and to make a positive difference in their lives. The most excellent institutions are, in this view, those that have the greatest impact - "add the most value," as economists would say--on the student's knowledge and personal development and on the faculty member's scholarly and pedagogical ability and productivity.(Astin, 1984, p.60-61)

Recognizing that there are a variety of elitist, egalitarian, and remedial institutional models, Astin further suggests that the institution should focus upon the nature of talent development through their institutional goals and mission (pp.70-71).

One pivotal aspect of talent development is the nature of the student involvement in this higher education experience. This concept of involvement, based within the individual's physical and psychological energy, considers both the qualitative and

quantitative actions of the student devoted to the academic experience. It suggests that the greater the investment, the more significant the learning experience and the greater the development of talent within the individual (pp.133-136). Astin hypothesizes a direct positive correlation between greater involvement and greater student persistence, academic success, talent development, and program completion. He presumes that the centrality of this singular commitment to collegiate life through involvement (somewhat analogous to Tinto's belief of centrality and integration to the cultural community participation) will directly impact the student's intellectual and personal development and intellectual success.

Both of these frameworks focus upon the young adult passage into a higher education experience from high school (Pascarella, 1985; Pascarella & Terenzini, 1991; Riesman & Jencks, 1962; Tinto, 1975; Tinto, 1987). They assume the ideal of a residential living experience analogous to the model of liberal arts colleges for this model. Further, they assume that the current theories of young adult development guide the targeted experiences and impacts upon the learner. Both of these frameworks, in differing ways, suggest that the student should be fully immersed in the collegiate culture and have a centrality of key life actions and involvements based within that academic experience (Levine, 1994). When using these frameworks and related assumptions to examine the adult, the adult student presents characteristics and actions reflecting deficiency, marginalization, and incongruence with potential future success and positive impact from an undergraduate higher education. These adults are more often part-timers; they are commuters; and they often cycle in and out of enrollments based upon external demands and needs in their lives. Because of external resources demands and role responsibilities upon adult learners, these frameworks suggest that there would be limited or superficial impact of the collegiate experience upon the development of the adult. They further hypothesize that adults would not be successful learners in the collegiate environment. Given current research on the academic success and psychological strength of adult learners, there is need to consider alternative conceptual frameworks of adult learner

participation in higher education. It also suggests future research into the interrelationship between participation, persistence and outcomes of adult learners in the undergraduate experience.

We offer three potential alternative frameworks and one proposed model to reconceptualize the nature of participation and involvement for adult learners. The three alternative frameworks include 1) learner participation through adult life roles; 2) learner participation as lifelong learning; and 3) learner participation based in a post-modern society. Following this section will be the proposed Model of College Outcomes for Adults, developed by Graham and Donaldson, representing a multifaceted explanatory model based in current research of adults in higher education.

Learner Involvement Through Adult Life Roles

The first framework looks to the central beliefs of participation through the lens of the key cultures and key roles of the learner in the adult world. Previous theories presume that the exclusive culture for an undergraduate learner was the higher education campus and classroom. It further assumes that the role of undergraduate higher education was to create separation from past worlds of cultural influence, to socialize the student for exclusive participation in the cultural community of higher education, and to prepare the student to enter the adult world of work, graduate school, and independent adult life.

The proposed alternative "framework of adult life roles participation" assumes that higher education cannot create this type of isolation and singular focus for living within the campus culture and intellectually within the campus classroom. It further assumes that it would be dysfunctional to attempt to encapsulate the life of the adult learner solely within this world of higher education. Lastly, it assumes that the adult learner is a different type of learner, both in terms of knowledge and understanding perspectives, as well as in developmental understandings of self, other, and world. Adult learners are predominantly embedded in the broader world of adult life, adult family roles, adult work roles, and adult

community roles (Kasworm & Blower, 1994). As noted by Edwards, "mature students..do not just bring their experiences with them, they are their experience" (1993, p.10). They have one foot in the campus, with responsibilities affecting life consequences both for themselves but also for others who are dependent upon them. Unlike young adult students who progress from the dominant ethos of high school learning to collegiate learning in a pipeline model of learning participation, adults reflect a network web of learning participation. They bring multiple alternative goals and experiences, and they seek out and participate in a variety of learning experiences in the collegiate classroom and in the world community. Adult students are not focused upon anticipatory socialization towards adult roles and responsibilities; rather, they are currently living adult life and seek learning through multiple goals integrated with current adult life demands. Their day-to-day engagements in work, family and community are the grist for examining theory and knowledge in the collegiate classroom and for integrating knowledge with life action and reflection (Kasworm, 1997).

Unlike the implicit assumptions of past historic frameworks embedded in the theory of culture and rites of passage, this first framework presumes that adult learners are active members of many cultures with significant role demands and expectations for each of these involvements. These cultures, roles, and experiences are not left behind upon entry into the collegiate setting and pursuit of undergraduate education. These cultures, roles, and experiences are the learner and his/her world! The adult learner is "multi-cultural," a responsible member of many cultural communities with related role responsibilities and demands. This alternative frame suggests a broader spotlight be placed upon adult life roles and actions for understanding participation and persistence. Thus, the institution should support, value, and integrate the multiple identities of the adult learner and reframe its understanding of engaging learners with complex lives within the world of learning and campus culture.

At the heart of this reframing is the shift of the unit of analysis from the student within an institutional context to an adult, who is also a student, within a life context of many other significant adult roles. From past research on adult learners, there is explicit support that these roles and responsibilities are often a key positive influences and support the initial entry, learning engagement, and future success of the adult student. By reframing this examination, the nature of involvement would consider how these roles and responsibilities may enhance, as well as potentially detract from learner's academic success and outcomes in higher education. It would consider how these roles interact with the nature of key factors of intellectual and personal growth and academic success. If the concern is with talent development, then the consideration becomes how higher education involvement intertwines with work, family and community involvements to enhance the talents of intellectual understanding and action of adult students. At the heart of this research strategy is the opportunity to define the key dynamics of the collegiate environment and culture and the key adult life roles for effective learner involvement and subsequent value-added outcomes.

Learner Participation as Lifelong Learning

This second alternative framework examines adult learner participation through the lens of the "adult learner engagement in lifelong advanced learning across the lifespan." It assumes that time-bounded undergraduate learning, as often defined by four to five sequential years in young adulthood to degree completion, is no longer a sufficient, appropriate, and valid set of assumptions. This framework would consider learner's involvements beyond the lock-step undergraduate credit classroom to reflect advanced learning, as defined by the level of content and cognitive complexity and by the quality of instruction goals and outcomes analogous to higher education efforts. Thus, the learning would not be defined by the specific collegiate context, but rather by the nature of the learning and its contextual relationship. It further assumes that "student participation" is an

historically flawed label; rather the focus should be on looking at learner participation, within a variety of student, learner, and teacher roles. For example, Sinnott and Johnson (1996) suggest: "Perhaps we can do better (at) predicting the future of adult lifespan learning if we examine the multiple function of learning-related socially institutionalized experiences for adults in the present, in the past, or in other cultures"(pp. 12-13). The cultural impact of settings and roles could provide greater sophistication to our understandings of learner's development and outcomes.

This framework on lifelong participation would focus upon a broader repertoire of rich, quality learning and instructional opportunities for advanced learning in our society. It would recognize significant society demands for continuing learning by adults who need to update or add new knowledge and skills. This model would consider the impact of "advanced knowledge learning" upon the intellectual growth and psychological development of the adult learner. Because advanced learning could occur in a variety of settings through a variety of providers, learning becomes contextualized and situated in relation to an examination of outcomes and patterns of participation. It would fundamentally assume that a college degree is not the journey, but rather just one part of the journey (Kasworm, 1993). As suggested in an examination of current participation in higher education by Change magazine:

Postsecondary education is no longer just for the young, no longer exclusively a rite of passage for 18-to 22-year olds who attend college full-time for four or five years before starting careers and families of their own. Increasingly, today's college students are part of postsecondary education's new majority of part-time and intermittent learners who are older, frequently combine work and schooling, and, given the extraordinary range of institutions seeking their enrollments, are more likely to see themselves as shoppers buying their postsecondary educations one or two courses at a time. They have learned to search for the best price, the most convenient time, and the most appropriate place to take the next set of courses they think they require ("In Search of Strategic Perspective," 1997, p. 35).

Concern about the nature of cultural impacts and talent development in relation to advanced learning, will reframe the unit of analysis for student participation and outcomes. It will look at significant adult learning experiences that occur through multiple higher education involvements, through intermittent participation, and through an increasing diversity of delivery systems and learning communities. This framework would suggest that delineated learner outcomes, often espoused to solely happen within higher education cultures, may occur in differing ways but with equally potent impacts upon the learners through other organizational contexts. This alternative framework would provide important perspectives on understanding these varied environmental and contextual impacts on adult learning and development across the lifespan.

Learner Participation Based in a Post-Modern Society

The third alternative framework investigates collegiate participation and involvement through the lens of postmodernism. This framework suggests that all undergraduate students, both young and old learners, are making sense of their lives and their learning through the experiences of a post-modern context. This post-modern critique suggests that the interconnections between students and collegiate institutions have become more fragile, ephemeral, and transient. The result is that both students and institutions lack a clarity and specificity of identity, mission, and relationship. In particular, collegiate students are focused upon highly particularistic, solitary pursuits. They do not anchor in one monolithic cultural community, nor do they experience socialization into a dominant student role in an institutional collegiate culture. Postmodernism suggests that individuals who reflect otherness (those of race, ethnicity, gender, class or age) are marginalized and experience incongruence with organizational structures, power relations, and traditional student cultural context of the collegiate world. At the extreme, there is a sense of alienation, because they face exclusion from the dominant culture of the elite intellectual and the dominant culture of total inclusion within the community. Unless they are young,

residential, intellectually gifted, and full-time students, they sense an exclusion through structures, policies, and relations (Bauman, 1991). Thus, these individuals purposively view their involvements in college and collegiate culture through a fragmented, ephemeral, and highly selective psychological and cultural engagement.

This framework suggests that our past assumptions of a developmental, unitary impact of a collegiate experience does not represent today's society. Today's college students, and in particular adult students, have a fragmented sense of cultural connections, constructing highly individualistic meanings for undergraduate study in higher education. As suggested by Quinnan, most of today's college students are "other," existing in the borderlands. They are "fluent in the dominant culture's language and practices yet never actually part of it, these students traverse daily between its boundaries and those of the cultures they inhabit" (Quinnan, p.35).

This framework would redefine the examination of participation and outcomes through a critique of the sense self as other, the institution as other, and the nature of these fragmented connections in relation to participation and outcomes. It clearly suggests that the concept of participation is a problematique, not a given. It suggests that the implicit notions of participation must be converted to explicit statements and re-examined for their validity and reality. For example, postmodernism suggests that self identity is no longer anchored in modernity with coherent developmental paths and societal certainties. Rather identity is continually reconstructed through self-reflexive biographies and with a sense of a disordered life as the norm. Thus, an adult student's identity is not shaped through the collegiate culture, nor potentially in any learning culture. In this sense, identity has a lack of clear reference points and solid groundings; it is decentering of self in the stream of society. The sense of identity is interplayed through a network of power relations, which struggle and contest domination and subordination in this society. In a post-modern world, adult learners (both young and old) are influenced by external forces and personal ennui as

catalysts for change. They have a sense of uncertainty about their identity, their current and future worlds, and about their sense of efficacy within and beyond college life.

In addition, collegiate institutions are also experiencing this chaos and questioning of identity and stability. As suggested by the postmodern lens,

.. (postsecondary institutions are) increasingly reconstructing themselves as enterprises to compete in the knowledge business. What also seems to be happening is a loss by universities of their privileged status as primary producers of knowledge... (Plant, 1995) universities are therefore less able to control access to knowledge when it increasingly takes the form of information circulating through networks which evade the control of educational institutions and when its value as a product of knowledgeable minds is challenged (Edwards & Robin Usher, 1997, Spring/Summer, pp. 160-161).

This framework would place the unit of analysis as the critical examination of current constructs of collegiate involvement, relationships of learning to development, and the notion of salient cultural learning communities. It would re-examine the beliefs about the relationship between the educative experience and learning outcomes. This framework would grapple anew at the notion of varied life journeys, young and old, college student and worker, in relation to the role of learner and of member of a collegiate community. It would consider the appropriateness of change and unpredictability imbedded within these examinations. Post-modern critique would also examine the influences of institutional and society power relations towards learner engagement and learner outcomes. Suggesting that past models of cultural community and talent development privilege young full-time, residential adults in collegiate communities, this framework would examine past policies, research, and resource contexts related to projected goals and desired outcomes and identify hegemonic practice and related research constructs.

Implications of alternative hypotheses

These alternative hypotheses raise a number of questions regarding both the theories of involvement and participation for positive student outcomes. Pascarella and Terenzini have re-examined their major synthesis on college impacts and suggested there is a need for new research frameworks and strategies. They call attention to one of their reviewers, as noted:

In short, the knowledge base for *How College Affects Students* permitted us to draw conclusions about a population of students that no longer dominant American postsecondary education.... For example... Stage cogently observed: "Ironically, just as analysis of the experiences of college students reached an apex in terms of quantitative "technique and vigor," the population of interest began shifting. Now at the end of the 2 decades, our college campuses are no longer predominantly populated by students described in this book." (Stage, 1993, pp.22-23)

These leading researchers suggest the need for revisionist thinking about increasing student diversity and its profound impact on future research regarding the impact of college on students.

...scholars of college impacts on students have been substantially less sensitive to the kinds of personal growth and maturing that may occur when students must meet work, family, and educational responsibilities simultaneously. The challenges confronting such students may lead to substantial growth along dimensions not typically considered in the existing body of research. Indeed, some of our most cherished ideas about the important purposes and outcomes of a postsecondary education may have little relevance for an increasing number of undergraduate students. (Pascarella & P.T.Terenzini, 1998, pp. 153-154)

There is need for serious rethinking of the nature of students and learning in relation to advanced knowledge. The context of learning must also be considered. What are the influences of particular place and potential impacts of a collegiate classroom, of on-line or other forms of distance learning formats, and of noncollegiate learning cultures on these diverse students? At the heart of these alternative hypotheses is its challenge to assumptions that immersion into college culture is the sole holding environment for college learners. It challenges the implicit notions of indoctrination of a group of learners into a

community with specific academic community values. And it raises clear conflicts with the thinking of undergraduate learning solely within the traditional collegiate classroom setting. The second and third alternative frameworks of this discussion push our examination into the broader society and world of learning, while the first framework and the proposed model focus us within the collegiate environment, yet from different vantage points of key influences and factors. All of these alternatives reflect the possibilities, as well as current significant issues related to past models of student participation and outcomes. It is to be hoped that they will challenge and illuminate our thinking and conceptualizing.

A Model of College Outcomes

The Model of College Outcomes draws on the work of Kasworm (1995; 1997), Kasworm and Blowers (1994), and several others (e.g., Kuh, 1993; Cupp, 1991; Graham & Donaldson, 1996) who investigated adults' experiences and the outcomes from undergraduate education. It attempts to offer a perspective that is comprehensive and weaves in elements from both the "learner involvement through adult roles" and the "learner participation as lifelong learning" perspectives described in the previous sections. The model provides a more complex, interactive, and dynamic view of the adult learner. It offers a new way of describing and understanding the experience for adult and other non-traditional students. Looking at the various relationships between these possible explanations offers a framework for understanding the college outcomes for adult learners (See Figure 1). This model is based upon the work of

The model consists of six components: (a) *Prior Experience and Personal Biographies*, (b) *Psycho-social and Value Orientations*, (c) *Adult Cognition*, (d) the *Connecting Classroom* as the central avenue for social engagement on campus and for negotiating meaning for learning, (e) *Life-world Environment* -- the current work, family, and community settings where adults learn and develop knowledge structures that differ from the academic knowledge structures of the classroom, and (e) *College Outcomes* -- different types of outcomes such as

learning new content just to finish a course versus gaining new knowledge to apply in authentic settings. The variations within each of the components and the interactions among them highlight the important dynamics associated with adult development in college. Each of the model's components are discussed in more detail below.

Insert Figure 1 about here

Prior Experience and Personal Biographies

As adults return to college they bring personal biographies that have been influenced by their prior experiences in the real "adult world." These experiences are rich and varied and range in nature from the inauthentic (e.g., formal schooling), to the simulated (e.g., college clubs or service learning from earlier college experiences), to the authentic (e.g., the real social and cultural contexts of adult life where adults participate as workers and family and community members). These prior experiences and personal biographies influence their perceptions of how they will do as they return to college. Further, these personal biographies influence their perceptions of themselves, their education, and the classroom and consequently their knowledge structures (*Adult Cognition Component*). These knowledge structures and mental schemata then in turn influence learners' motivations, self-esteem, self-confidence, responsibility as well as the value systems or the *Psycho-social and Value Orientations* component. Finally, they establish the conditions for how adults will interpret their experiences in college by setting establishing patterns for understanding and evaluating their surroundings or the *Life-world Environments* component.

Psycho-social and Value Orientations

There are many psycho-social dimensions that influence the adults' abilities to persist and achieve success in college. These include the presence or absence of psychological distress, the adults' commitment to the student role, possessing adequate study skills, having a

clear purpose for participation, and the competing life roles with which most adults must contend. Furthermore, adults' evaluations of themselves as learners influence their participation patterns (Cross, 1981).

Adults often attend college with a clear purpose in mind and compensate for any initial lack in confidence or rusty skills by working harder than the traditional- aged students. Adults likely draw upon metacognitive skills from the *Adult Cognition* component, influenced by their extensive previous experiences and self-knowledge, that allow them to manage their time and energies to get the most out of school. Lastly, while younger students tend to value the social aspects of college more than adults, some research has demonstrated that adult students are more concerned with the cognitive and quality aspects of their education. These conditions may make adults more serious students by focusing them on achieving direct benefits from college and seeking as much as possible from the experience. After all, they are devoting precious time and financial resources to their efforts.

The Connecting Classroom

A number of other researchers have offered evidence that the classroom is the center stage for learning for adults (Bean & Metzner, 1985; Dill & Henley, 1998; Donaldson, 1991; Kasworm, 1997; Kasworm & Blowers, 1994). Kasworm and Blowers (1995) report part-time students place great importance on the relationships with faculty members and their in-class learning experiences. This may offer one explanation of how adults compensate for their lack of time is that their class-related learning and their relationships with faculty and other students make up the most powerful influences on their campus experiences. In addition, if adults have limited interactions with the college environment, they may instead gain support from family, friends, and co-workers and others in the *Life-World Environment* component. This is in contrast with traditional-aged students where the primary impact comes from their involvement with peers and in peer-related activities -- often outside of class.

In our model the classroom is seen as the center stage of the collegiate experience for adults. It interacts with the *Psycho-Social and Value Orientations*, the *Life-World*

Environment, the *Adult Cognition*, and the *Outcomes* components to connect adults with their instructors and student peers. The classroom interactions provide a social context for learning and help shape the role of college student. In this instance, both the instructor and the instructional strategies employed create a climate where in-class and out-of-class learning and prior and concurrent knowledge structures are connected. The social interactions along with the instructional activities influence the learners' *Psycho-social and Value Orientations* component. As an illustration of this phenomenon, the students' success in learning reinforces their motivations and offers evidence for positive self-evaluation of their role as students.

Adult Cognition

The *Adult Cognition* component encompasses three forms of cognition: (a) declarative and procedural knowledge structures, (b) metacognitive or self-regulatory processes, and (c) cognitive operations (e.g., accretion, transformation) through which their knowledge structures develop (Anderson, 1993; Bruer, 1993; Rummelhart & Norman, 1978). It is concerned with the knowledge structures and learning processes adults bring to college (*Prior Experience and Personal Biographies*) and those they develop in their in-class (*Connecting Classroom*) and out-of-class experiences (*Life-World Environment*). The adults' prior experiences also provide them with practical know-how about how to manage their time and study methods. They employ these metacognitive processes to monitor and regulate their work, learning, and personal life roles and their beliefs about how to combine their study methods, their interactions with instructors, and their classroom experiences.

It is critical to recognize the actual context for learning (Lave & Wenger, 1991), as this component refers to the in-class and out-of-class social contexts, language, and other learning tools that adults use to make meaning of new information and knowledge. This component of the model, like the *Connecting Classroom* and *Life-World Environment* components, contributes to the outcomes adults experience in college as they adapt to multiple communities-of-practice as part of a community of learners, family members, workers, community citizens (Brown & Duguid, 1991; Wilson, 1993).

The abundance and complexity of the various life-roles of family member, worker, and student also interact and shape patterns of thinking and ways of connecting the new knowledge to their own rich experiences in college (Kasworm and Blowers, 1995). The knowledge structures are a function of prior experience, conceptions of self, education, and the classroom (i.e., declarative structures), as well as the know-how (i.e., procedural knowledge) that learners employ in their study habits and work responsibilities. These beliefs or mental models about how to learn influence adults ability to use the classroom to make meaning of new information. Furthermore, these beliefs affect the interactions and relationships with instructors, ranging from viewing instructors as authorities to viewing them as co-learners and peers (Kasworm, 1997). These cognitive structures shape future learning and offer a means of interpreting the experiences once adults begin their collegiate careers. All of these interactions influence the *Life-World Environment* and *Connecting Classroom* components of the model.

Adults report they learn expert knowledge by using either a hierarchical, building block, or a networking approach to connect the existing knowledge to the unfamiliar new knowledge (Kasworm & Blowers, 1994). They also found that in some instances adults used real-life experiences to forge meaningful learning connections to link academic and real-world knowledge whereas in other situations they simply memorized class-based expert knowledge that did not connect to their life experiences. Consequently, Kasworm and Blowers' findings suggest that adult students make clear distinctions between the academic world and real world and the knowledge and learning strategies that are necessary for each instance. The extent to which they are able to make these connections influences the value of their college experiences.

Life-World Environment

The model's *Life-World Environment* component includes the social settings outside the collegiate environment and the people adults depend upon for support for their collegiate learning activities. It includes such aspects as their family, their work, and their communities where they participate as citizens and leaders. This setting also provides the context where adults learn in experience and construct what Kasworm labeled "life-world knowledge

structures." These settings serve as out-of-class contexts for learning and act as alternative avenues for conventional campus involvement (e.g., social clubs, campus activities, work study experiences). These settings offer places where adults construct meaning for what they are learning in their classrooms.

Another element of the *Life-World Environment* component is the "reinforcing agents," or individuals within the out-of-class social settings that support adults return to higher education. These "reinforcing agents" include family members, co-workers, supervisors, and community members with whom adults interact on a consistent basis. These individuals either provide psychological and social support for adults to return to pursue their collegiate studies or undermine their efforts. Support from others can help adults foster meaning from their experiences as part of their continued development. Therefore, support is needed not only to return to higher education and persist in it, but is required for adults to make meaning from their concurrent experiences in school and out. In addition, these varying levels of support either enhance or detract from elements of the *Psycho-Social and Value Orientations* component where adults engage in their collegiate experiences.

College Outcomes for Adults:

The last component of the model focuses on the outcomes derived from the college experience. Most earlier studies of college outcomes focus on measures that tap the traditional academic definitions of expected outcomes from college such as cognitive, intellectual, and emotional development where research has demonstrated that adults experience equal or greater outcomes as those achieved by traditional-age students. In the model, conventional definitions of college outcomes such as intellectual, knowledge-related, and emotional growth are recognized. However, it also focuses on different levels of outcomes that defined by adult learners that go beyond those normally defined by the academic community. For example, Kasworm (1995, 1997) found that traditional academic outcomes were connected to the adults' perceptions of how well they integrated the academic and life-world knowledge structures. These outcomes included (a) separate and distinct academic and life-world knowledge

structures -- where learners maintained a distinction between what they were learning in class and in their *Life-World Environments*; (b) elaborated life-world knowledge structures -- where students used what they had learned in college to elaborate on what they knew as a result of their learning in their *Life-World Environments*; and (c) integrated and transformed life-world and academic knowledge structures -- where adults were able to integrate what they had learned across the various life-world and collegiate contexts in which they were engaged.

By expanding the definitions of potential college outcomes, the model raises some questions about the relationship between different forms of involvement in adults' *Life-World Environments* versus the conventional forms of on-campus involvement and the possibility of different outcomes. It also questions whether adults distinguish between success in their learning and success in college (e.g., getting good grades, playing the "academic game," getting a degree) that is predicated on achieving outcomes defined by the institution and its faculty. And, it considers outcomes influenced by multiple factors such as the collegiate experience, life-world experiences, and adult cognitive processes and not simply what learners experience on campus.

Discussion

We now have substantial evidence that the increasing presence of adult learners in undergraduate programs are forcing us to question long-held assumptions about the nature of the collegiate experience and its influence on students. In part stimulated by this evidence, the Model of College Outcomes proposed here suggests an alternative way of thinking about this relationship. The model helps to both illuminate issues critical to our understanding of the adult undergraduate experience and draws attention to certain issues remaining to be further developed and elaborated. In this final section, we explore the implications of this model for our understanding and re-framing of the collegiate experience.

The Meaning of the Collegiate Experience for Adult Learners

Within the Model of College Outcomes, both the experience of college and its outcomes are reinterpreted through a constructivist lens. The meaning of the adult undergraduate student experience comes to be understood not as one in which individuals accrue knowledge within the existing cultural frames of the college community. Rather, adult learners are viewed as actively engaged in constructing the meaning of these experiences within the broader context of their lives. What it is that adults learn in college and how they learn reflects these broader contexts. In a sense, the learner's "life-world" is redefined through this perspective, extending well beyond the relationships and boundaries that might circumscribe the college experience. Learning and development is bound up with this life-world, and represents a reflection of it. It is through the context of particular life-worlds that the meaning of the college experience and what is learned comes to be constructed and reconstructed.

Thus, the model reflects an understanding of the meaning of the college experience as constructed and rooted in prior experience, resonating with longstanding ideas of experience-based learning in adult education (e.g., Brookfield, 1986; Freire, 1970; Hart, 1992; Knowles, 1990; Lindeman, 1926; Merriam & Clark, 199). According to the model, adult learners come to understand their college experiences through connecting and integrating these experiences with prior experience, knowledge, values, and life roles. Challenging the dominant, "banking" view (Freire, 1970) of learners as passive, empty vessels, the model assumes adults to be active in making sense of what they are receiving and the experiences in which they take part. The meaning of the collegiate experience is shaped by and, in turn, serves to re-construct understandings of prior experience, knowledge, life roles, beliefs and values brought to the college experience. The nature of outcomes derived by adult learners from their undergraduate experience cannot be fully understood as "freestanding" or apart from these complex, transactional relationships that characterize the adults' life-worlds.

From these perspectives, then, learning is viewed as contextual and situated. While adults may continue to be subjected, as are thousands of traditional-aged undergraduates every day, to views of learning that stress transmission and reproduction of knowledge (Pratt, 1997), they make sense of this disconnect through elaborate and sophisticated forms of meaning-making, forms and styles which tend to reflect their particular contexts and situations. Thus, some adults construct and maintain knowledge structures of academic and life-world contexts that are distinct and separate, and their collegiate experience comes to be understood with these knowledge structures. Others, however, transform their knowledge structures by integrating them more fully with each other. While in most cases, similar information and skills may be acquired, the nature of what is learned - the knowledge derived and its meaning - comes to reflect the particular contexts in which adult learners find themselves. Regardless of the specific pedagogical or curricular theories guiding the adult's teachers, what eventually comes to be known cannot be understood apart from the particular contexts and situations in which the adult undergraduate finds him or herself.

This emphasis on a constructivist understanding of the collegiate experience also calls into question traditional ways of understanding its influence on the student's growth and development. Much of the previous literature on the student college experience is influenced by modernist interpretations of identity development. Implicit in these views of development are various notions or models of a unitary self, a self that is characterized as bounded, masterful, and in control (Cushman, 1995). Theories and models of development that reflect such a view of the self suggest universally-experienced attributes or qualities that characterize various stages of the self's development. College experiences are understood as contributing or not contributing to some unitary aim of development.

The model presented here suggests the limitations of the modernist approach to understanding the developmental influences of college in contemporary society. The collegiate experience derived by adult learners does not reflect the influence of a central,

developmental rudder which guides the meaning-making experience. Rather, development is understood within a broader, postmodernist view of identity as multiplistic, fragmented, and decentered. The connection between the college context and the adult's life-world is seen as ephemeral and transient. Unlike modernist, unitary models of self and development, this postmodern interpretation of the adult's undergraduate experience emphasizes its ambiguous and uncertain nature. Students are not understood as being socialized into unitary, cultural communities. Rather, they are seen as existing members of multiple communities with often divergent and even contradictory cultural contexts. Thus, the model situates our theories and understanding of development within the college experience culturally and historically. For adults, involvement and engagement in college and the developmental effects derived from this experience reflect the multiple and often fragmented realities which characterize their lives as learners.

Rather than relying exclusively on the kinds of experiences obtained within the college community, this model attempts to account for a broader, more encompassing set of factors which interact in complex ways with the learner's academic experience on campus. It places more emphasis on the nature of the "classroom experience" that adults derive from this academic experience, and how that experience may be an important consideration in understanding the ways in which adults reconstruct meanings associated with various aspects of their life-worlds. This emphasis on the classroom context reflects Winnicott's (1965) idea of a holding environment within the context of development, and the power of the socio-emotional dimensions of the group (Smith & Berg, 1987). Given the fragmented nature of society today, it makes sense that adults, within the contexts of their life-worlds, would come to understand settings such as the college classroom as literally crucibles of meaning-making.

Directions for Future Inquiry Regarding the Adult's Experience of Undergraduate Education

While the model underscores an alternative set of assumptions regarding the adult's undergraduate experience, it also identifies several issues in need of further research and thought. In particular, we will focus in particular on the notions of the connecting classroom, the meaning and nature of the life-world, and the seemingly linear relationship between the nature of the college experience and what the adult derives from that experience.

Because of its emphasis on a constructivist understanding of the collegiate context and the centrality of the classroom to the adult's experience of this context, the model draws our attention to the specific nature of these classroom experiences. Implicit in this model is a view of the undergraduate classroom as a place where learners are actively engaged with the material, each other, and the instructor in a desire to understand and make sense of their texts. Theoretically, the connecting classroom provides the context through which adults integrate these texts within the broader knowledge structures that characterize their lives outside of the classroom and the college experience.

But to what extent does this description of the undergraduate classroom reflect current pedagogical practice among our colleges and universities today? It is probably safe to suggest that the great majority of these classrooms remain dominated by teacher-centered processes that render the learner relatively passive and stress transmission of information and skill rather than construction of meaning and knowledge. If the pedagogy, then, is not constructivist in nature, in what ways does the classroom come to serve as a "fulcrum" of adult's collegiate experience? In what ways can adults socially construct the meaning of this experience within such a classroom? The model's theoretical view suggests that the adult's level of engagement and involvement in college are associated with his or her classroom engagement with the instructor, peers, and the text. It is not clear the extent to which a constructivist pedagogy is necessary or contributes to this relationship. Thus, there appears to be considerable work needed to deconstruct the meaning of the "connecting

classroom" within the proposed model and its relationship to both the collegiate experience and the specific outcomes derived from that experience.

How we come to understand the notion of the adult's "life-world" represents another problematic aspect of the model. There is a temptation to view the adult learner's life as comprised of academic and nonacademic dimensions, much like children do when they make the distinction between what's "school" and "not school." These dimensions make for neat and tidy ways of approaching the adult experience of college. Yet, to view the adult's life-world as made up of so-called non-academic aspects is to diminish the power of the concept of the life-world. According to Welton (1995),

The life-world is the realm of intersubjective interaction and adult learning par excellence. It is within the life-world that we learn what life means, what binds us together as human beings and constitutes an autonomous personality. It is in the life-world that we organize our common affairs through non-instrumental forms of communication. (p. 5)

In this sense, then, the academic experience that adults derive through and in college is constitutive of their life-worlds. The collegiate experience and classroom learning are aspects within a complex field of intersubjectivity that makes up adult learning. The model suggests, however, that academic experiences are not, in some sense, "real." Rather, there is a need to integrate this experience more fully within the broader frame of the adult's non-academic world (the life-world).

Thus, the model directs us to make more clear theoretical distinctions between what is conveyed in the model as life-world environment and various aspects of the collegiate experience. Any adult who has undertaken such an experience will testify just how interwoven and intertwined these various experiences really are. There is a need to clarify the theoretical distinctions being made between life-world structures, psycho-social and value orientation, and prior experience and personal biographies. To what extent do these distinctions actually reflect the ways in which adults makes sense of their experience in

college? How we come to understand and differentiate these various aspects from a theoretical and empirical perspective remains a considerable challenge.

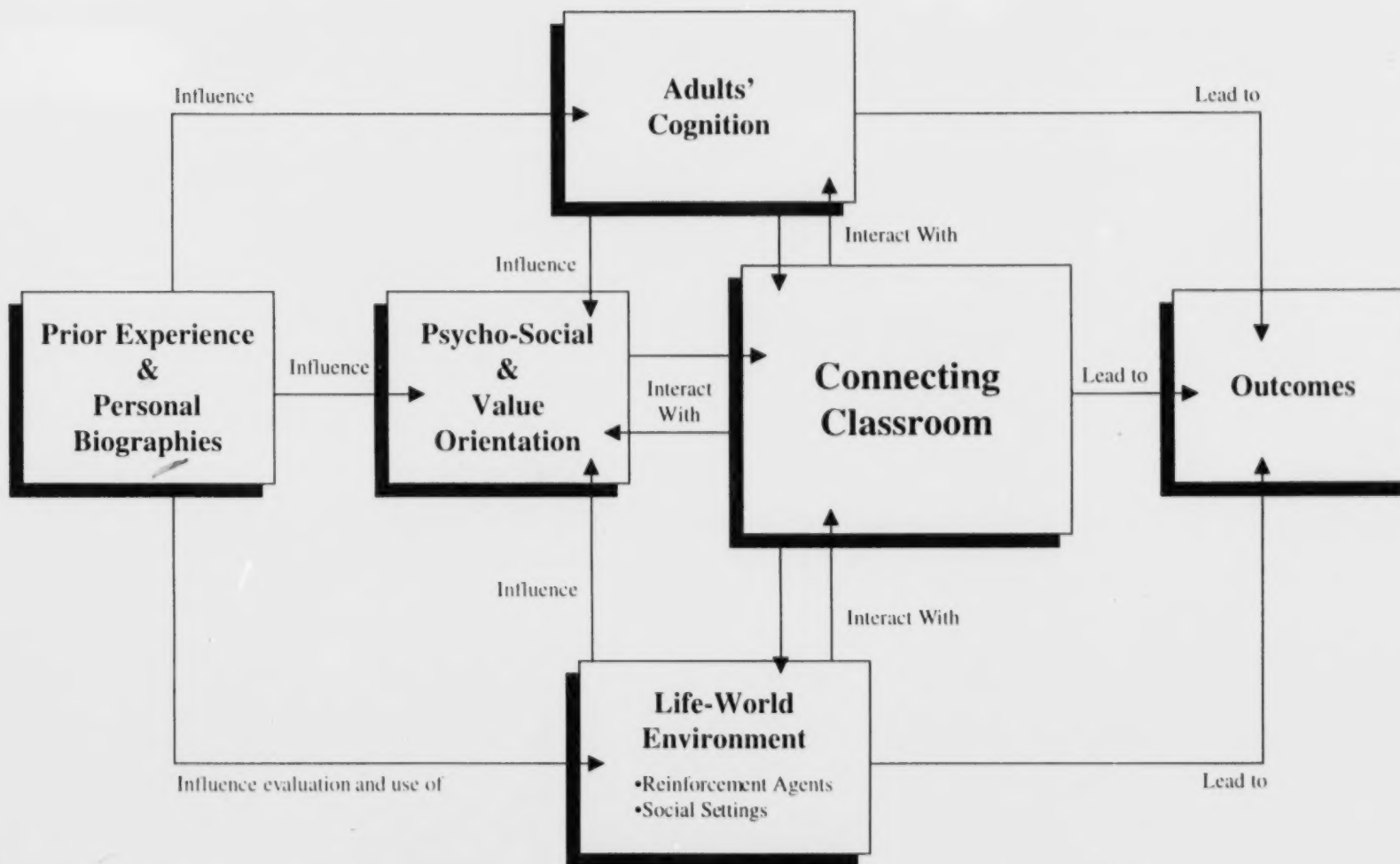
Finally, the model continues to reflect a long-standing assumption about the collegiate experience; that is, that the college context has a powerful and important influence on what it is that learners derive from the collegiate experience. While the model adheres to constructivist notions of learning and development, the organizational and structural context of the college itself is privileged in a way that adult experiences are not. The model is predicated on the idea of the college experience bringing about specific outcomes. The rapid increase in proportions of adults making up undergraduate enrollments, however, raises questions about the linear direction of this relationship. It is possible to imagine that the specific college context itself is influenced by the presence and nature of adult learners. Many institutions have altered policies, procedures, and other organizational structures to accommodate the increasing number of adult learners on campus. The increasing presence of these adults on campus have brought about changes in the times of the day and days of the week for which courses are offered. They have stimulated the growth of off-campus programs. Whole colleges have re-oriented themselves around service to an adult clientele, giving rise to a highly competitive market of small, for-profit and not-for-profit schools aimed toward the education of adult students. Information technology is providing the basis for fundamental changes in instructional delivery, increasing access to adult students who would otherwise be unable to participate in college. Even pedagogical and curricular practices in traditional universities and classrooms may be gradually responding to the ways adult learn.

All of this suggests that the relationship of the collegiate experience and outcomes of college is quite complex. Specific outcomes may be related to particular aspects of a adult learner's college experience but the nature of that experience itself reflects the influence of adult learners on certain institutional structures and processes. Thus,

outcomes may also be related to the extent to which an institution is responsive to specific needs of its adult population.

Conclusion

In closing, the Model of College Outcomes offers the potential for reframing the ways we think about the college experience for both younger (traditional) and older adult learners. The adult's presence on campus serves to make problematic a number of assumptions regarding the relationship of the collegiate experience with student outcomes. Furthermore, it provides the basis for reconceptualizing these relationships from a postmodernist and constructivist perspective. In so doing, however, the model provides scholars with a host of exciting questions about the student college experience in need of theoretical and empirical development. This quality may be its most significant attribute.



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Research on College Outcomes & Adults' Experiences in Higher Education

Research Emphasis	Findings	Author	Citation
Cognitive and Intellectual Development	An educational ethos that provides supportive faculty and instruction significantly enhances cognitive development across several areas. Findings consistent for adults as well as traditional students.	Graham	Graham, S. (1998). Looking at adult growth in college: Examining the effects of age and educational ethos. <u>Journal of College Student Development</u> , 39 (3) 239-250.
Cognitive and Intellectual Development	Adults less involved on campus and more involved in off-campus activities; cognitive and career development equal to or greater than traditional students	Graham & Donaldson	Graham, S. & Donaldson, J. Adult students' academic and intellectual development in college. <u>Adult Education Quarterly</u> . (in press)
Cognitive and Intellectual Development	Classroom stage for making meaning; use classroom to intensify learning and foster interactions with instructors and peers.	Kasworm & Blowers	Kasworm, C. & Blowers, S. (1994, June). <u>Adult undergraduate students: Patterns of involvement</u> . Final research report to U.S. Department of Education, Knoxville, TN: College of Education, University of Tennessee-Knoxville, Tennessee.
Cognitive and Intellectual Development	Adults make more use of time management strategies; no evidence that adults perform less well; deep approach to learning owing to intrinsic goals, prior life experiences, and/or no recent experience as seniors in high school	Richardson & King	Richardson, J.T. E., & King, E. (1998). Adult students in higher education: Burden or boon? <u>Journal of Higher Education</u> , 69 (1), 65-88.
Cognitive and Intellectual Development	Traditional students have higher motivation to learn; adults earn higher grades	Sheehan, McMenamin, & McDevitt	Sheehan, E. P., McMenamin, N., and McDevitt, T. M. (1992). Learning styles of traditional and nontraditional university students. <u>College Student Journal</u> , 26 (4), 486-490.
Cognitive and Intellectual Development	Achievement of collegiate goals of learning- to learn, and self-sustained learning- women alumnae Achievement of collegiate goals for performing complex intellectual and interpersonal abilities -women alumnae	Giencke-Holl, Mentokowski, Much, Mertens & Rogers	Giencke-Holl, L. Mentokowski, M., Much, N., Mertens, S. & G. Rogers. (1985). Evaluating college outcomes through alumnae studies: measuring post-college learning and abilities. Paper presented at the 1985 American Education Research Association.

Research Emphasis	Findings	Author	Citation
Cognitive Patterns and Approach to College Work	Social integration misspecified as to importance where external variations play an important role; Adults use classroom more intensely; have higher attrition rates	Bean & Metzner	Bean, J.P. & Metzner, B.S. (1985). A conceptual model of nontraditional undergraduate student attrition. <u>Review of Educational Research</u> , 55, 485-540.
Cognitive Patterns and Approach to College Work	Adjustment model – intentions to continue influenced by institutional commitment and absence of psychological distress; support from family and friends influenced psychological distress and intent to continue; evaluation of offerings and advisement enhances commitment; perception of study skills have important impact on academic adjustment	Chartrand	Chartrand, J. M. (1990). An empirical test of a model of nontraditional student adjustment. <u>Journal of Counseling Psychology</u> , 39 (2), 193-202.
Cognitive Patterns and Approach to College Work	Adults report greater impact from bad classes; higher stress impact from family and friends recovering from illness and injury	Dill & Henley	Dill, P. L., & Henley, T. B. (1998). Stressors of college: A comparison of traditional and nontraditional students. <u>Journal of Psychology Interdisciplinary and Applied</u> , 132 (1), 25-32.
Cognitive Patterns and Approach to College Work	Importance of classroom and relation with instructor as form of involvement	Donaldson	Donaldson, J. F. (1989). Recruiting and retaining adult students in continuing higher educations. In P. S. Cookson (Ed.), <u>Recruiting and retaining adult students</u> . <u>New Directions for Continuing Education</u> , No. 41, (pp.63-78). San Francisco: Jossey-Bass.
Cognitive Patterns and Approach to College Work	Adults have clearer purpose, more intent on learning, and take instructors' advice	Frost	Frost, S. (1991) <u>Academic advising for student success: A system of shared responsibility</u> . ASHE-ERIC Higher Education Reports No. 3, Washington DC

Research Emphasis	Findings	Author	Citation
Cognitive Patterns and Approach to College Work	Make meaning through life experiences; Classroom as stage for meaning making; Different stances toward knowledge structures (life world and academic)	Kasworm	Kasworm, C. (1997, March) <u>Adult meaning making in the undergraduate classroom</u> . Paper presented at American Education Research Association (AERA) Conference, Chicago.
Cognitive Patterns and Approach to College Work	Adults valued quality education more and social life less	Okun, Kardash, & Janiga	Okun, M. A., Kardash, C. A., and Janiga, J. M. (1986) Age differences in college values and perceived quality of college life. <u>Educational Gerontology</u> , 12, 409-416.
Cognitive Patterns and Approach to College Work	Significantly positive relationships found between metacognitive knowledge and learning strategy use, between metacognitive knowledge and years of postsecondary education, and concept of learning and learning strategy use. Traditional and adult students differed significantly in their level of metacognitive knowledge, use of learning strategies, and conceptualization of the learning process.	Rasnak	Rasnak, M. A. (1995). Metacognitive dimensions of the selection and use of learning strategies by adult college students and traditional-age college students. <u>Dissertation Abstracts International</u> , 56 (06), 2181A.
Institutional Experience	Through focus group interviews on adult students' perceptions of evening program quality, it was found that the students were more interested in being able to enroll in courses required for their degrees than in being able to participate in "typical" campus activities.	McCormick	McCormick, C. B. (1994, March). <u>Assessing undergraduate curriculum for the adult learner: Focus group research</u> . Paper presented at the annual meeting of the Southeastern Psychological Association, New Orleans, LA.
Institutional Experience	Institutional support system needs of adult learners are more complex than for traditional-age students. Satisfaction of those needs is integral to perceived academic success. Perceptions of institutional support was perceived differently by men and women.	Buhr	Buhr, L. M. (1997). Assessing support needs of undergraduate adult learners. <u>Dissertation Abstracts International</u> , 58 (08), 3032A.

Research Emphasis	Findings	Author	Citation
Motivation	Adults clearer purpose, more intent on learning, take instructors' advice	Cupp	Cupp, L. (October, 1991) <u>Acquiring new perspectives: The impact of education on adult students in a traditional university</u> . Paper presented at the Annual Meeting of the American Association for Adult and Continuing Education, Montreal, Quebec.
Motivation	Adults' higher work orientation; achievement motivation correlated with satisfaction	Donohue & Wong	Donohue, T. & Wong, E. (1997). Achievement motivation and college satisfaction in traditional and nontraditional students, <u>Education</u> , 118 (2), 237-243.
Motivation	Adults' major strains – time demands and anxiety about academic ability	Novak & Thacker	Novak, M., & Thacker, C. (1991). <u>Satisfaction and strain among middle-aged women who return to school</u> : Replication and extension of findings in a Canadian context. <u>Educational Gerontology</u> , 17 (4), 323-342.
Motivation	Adults more achievement oriented; more internally motivated; perceived less anxiety in learning	Nunn	Nunn, G. (1994). Adult learners' locus of control, self-evaluation and learning temperament as a function of age and gender. <u>Journal of Instructional Psychology</u> , 21 (3), 260-264.
Motivation	Motivation to enter higher education should be emphasized as potential. Education was used as a means to reconstruct lives and find psychological strengths.	West	West, L. (1991). Beyond fragments: Adults, motivation and higher education, <u>Studies in the Education of Adults</u> , 27 (2), 133-156.
Motivation	Adults higher on cognitive interest and lower on social relationships	Wolfgang & Dowling	Wolfgang, M.E. & Dowling, W.D. (1981). Differences in motivation of adult and younger undergraduates. <u>Journal of Higher Education</u> , 52 (6), 640-648.

Research Emphasis	Findings	Author	Citation
Research on Traditional Students	College has meaningful impact on development and promotes cognitive, social and value changes. Institutional climate and active involvement in college life produces greater benefits.	Astin	Astin, A. (1993). <u>What matters in college: Four critical years revisited</u> . San Francisco: Jossey Bass.
Research on Traditional Students	Student-student interaction (involvement) leads to growth	Levine	Levine, A. (1994). Guerrilla education in residential life. In C. C. Schroeder & P. Mable (Eds.), <u>Realizing the Educational Potential of Residence Halls</u> (pp.93-106). San Francisco: Jossey Bass.
Research on Traditional Students	Involvement leads to academic integration	Pascarella & Terenzini	Pascarella, E., & Terenzini, P. (1991). <u>How college affects students: Findings and insights from twenty years of research</u> . San Francisco: Jossey Bass.
Research on Traditional Students	Studied impact of work on college outcomes across a range of student types. Found curvilinear relationship between work and cognitive growth in 3 rd year of college – part-time work was related to greater growth; full-time work or more related to equal or reduced growth. Different findings for 1 st and 2 nd years	Pascarella, Edison, et al.	Pascarella, E. T., Edison, M. L., Nora, A., Hagedorn, L. S., and Terenzini, P. T. (1998). Does work inhibit cognitive development during college? <u>Educational Evaluation and Policy Analysis</u> , 20 (2), 75-93.
Retention	Involvement leads to social integration	Bean	Bean, J. (1990) Why students leave: Insights from research. In D. Hossler & J. Bean (Eds.), <u>The strategic management of college enrollments</u> . San Francisco: Jossey-Bass.

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